REMARKS

The Examiner has rejected claims 1-9 under 35 U.S.C. 103(a) as being obvious and unpatentable over Blatz (U.S. Pat. No. 5,770,654) in view of Hedrick et al., U.S. Pat. No. 3,419,517).

The Examiner takes the position that Blatz discloses all of the claimed features of the present invention except that Blatz does not describe a polyamide composition comprising a mineral filler. The Examiner points to Hedrick to supply the teaching of mineral fillers for polyamide compositions, stating that one of ordinary skill in the art would motivated by an expectation of success to combining the two references and thereby obtain the Applicant's claimed invention.

The Applicants respectfully disagree. The Applicants agree that Blatz does disclose polyamide compositions that consist essentially of plasticized polyvinylbutyral and polyamide, but such compositions do not include filler. The Applicants also agree that Hedrick does disclose a polyamide composition with a mineral filler. However, it is the Applicants position that: (1) the combination of Blatz and Hedrick do not provide the Applicants invention; (2) Hedrick teaches away from Blatz, and therefore the combination of the references does not unambiguously lead one of ordinary skill in the art to the claimed invention; and (3) the combination of Blatz and Hedrick does not supply the motivation of success that the Examiner has stated is present in the teachings.

With regard to the first point (1), above. In the Summary of the Invention, Blatz states that the invention provides a composition "consisting essentially of" a blend of 50 to 90 wt% polyamide, 10 to 50 wt% plasticized polyvinylbutyral, and 0 to 10 wt% of a an elastomer that is an "ethylene copolymer with at least one other α-olefin or an EPDM rubber . . . having pendant succinic anhydride groups . . .." Then, Blatz provides the proviso that if the elastomer is not present, the amount of polyamide is 50 to 75 wt% and the amount of plasticized PVB is 25 to 50 wt% and the Notched Izod impact strength is at least 200 J/m, or if the elastomer is

present, the amount of polyamide is 20 to 85 wt% and the amount of PVB is 10 to 25 wt% and the Notched Izod impact strength is at least 500 J/m.

The Examiner will note the Notched Izod results provided in Table 1 at page 12 of the present application are all substantially less than 200 J/m. This is a direct contradiction to the teachings of Blatz, and therefore there is no teaching in Blatz that suggests the results obtained by the Applicants. In fact, Blatz teaches away from the Applicants invention by teaching polyamide/PVB blends having Notched Izod impact strength of at least 200 J/m.

With regard to point (2) above, the Applicants point out that the use of "consisting essentially of" language in Blatz precludes the incorporation of any materials that would affect the novel or patentable nature of the claimed invention. The Examiner suggests the combination of Blatz and Hedrick to obtain a polyamide/PVB/filler composition as claimed by Applicants. However, this combination is contrary to the teaching of Blatz, particularly in view of the teaching found in Hedrick. As stated above, Blatz describes a polyamide composition having a minimum impact toughness, as measured by Notched Izod. Hedrick, teaches that a filled polyamide composition would be expected to have a lower impact resistance (column 2, lines 18 - 22) than an otherwise identical un-filled polyamide composition, and this would lead one of ordinary skill to conclude that adding filler would materially affect the impact strength of the polyamide composition in Blatz. Therefore, one of ordinary skill in the art would not add filler to the composition of Blatz, as this is in direct contradiction to the teachings therein. Hendrick, therefore, would lead one of ordinary skill away from the combination.

With respect to point (3) above, the Examiner states that one of ordinary skill would be motivated by the expectation of success to combine the references in the manner suggested by the Examiner. However, one of ordinary skill in the art would have no basis for expecting "success" from the combination - if "success" is defined as an expected improvement in the properties of the polyamide composition.

Blatz teaches that other components cannot by easily added to the disclose polyamide composition without materially affecting such properties as impact toughness and strength. Hedrick teaches that polyamide properties are deteriorated by adding filler. Yet the Examiner suggests that one of ordinary skill in the art would expect success in carrying out an operation that each reference individually teaches against. The only way the Examiner can say that one of ordinary skill would be following a roadmap to success would be to define "success" in some other way, that is, to make the Applicants' invention the goal of the combination. Since the Applicants' invention does not improve the impact toughness relative to either Blatz or Hedrick individually - and this general result is predictable from the teachings in both - there would be no other motivation to combine the teachings in the manner suggested by the Examiner except to reproduce the Applicants' invention. This combination is motivated by hindsight reconstruction of the Applicants' invention, and is not permissible in formulating an argument of obviousness under the patent laws.

The Applicants motivation was not to necessarily provide a polyamide composition having improved properties over conventional polyamides, but to provide a useful polyamide/PVB composition having acceptable properties for conventional and/or non-conventional polyamide applications, while at the same time using low-cost materials.

CONCLUSION

In view of the foregoing, the Applicants request reconsideration of the rejection, and instead that Claims 1-9 be considered as allowable.

Respectfully submitted,

KEVIN S. DOBSON
ATTORNEY FOR APPLICANTS
REGISTRATION NO. 40,296
TELEPHONE: 302-892-5526

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